IN THE UNITED STATES DISTRICT COURT

FOR THE NORTHERN DISTRICT OF OHIO

EASTERN DIVISION

UNITED STATES OF AMERICA,	)	
	)	INDICTMENT
Plaintiff,	)	1:01 CR 210
v.	)	CASE NO.
	)	
	)	Title18, United States Code,
TAKASHI OKAMOTO,	)	Sections 371, 1831(a)(1) and
HIROAKI SERIZAWA,	)	(a)(2), 2314 and 2
	)	
Defendants.	)	JUDGE DOWD

COUNT 1

The Grand Jury charges:

A. INTRODUCTION

At all times material to this Indictment:

1. The Cleveland Clinic Foundation (CCF) was a non-profit medical and research institution located in Cleveland, Ohio which, among other things, conducted research into the cause and treatment of certain diseases such as Alzheimer's Disease.

2. Defendant TAKASHI OKAMOTO (OKAMOTO) was a Japanese national and a legal permanent resident of the United States. From in or about January 1997, to on or about

July 26, 1999, OKAMOTO was employed by the Lerner Research Institute (LRI) of the CCF to conduct research into the cause of, and potential treatment for Alzheimer's Disease.

3. Defendant HIROAKI SERIZAWA (SERIZAWA) was a Japanese national and a legal permanent resident of the United States. From on or about December 16, 1996, to the present, SERIZAWA was employed by the Kansas University Medical Center in Kansas City, Kansas. SERIZAWA was a close friend and peer of OKAMOTO from the time that they met in Boston, Massachusetts in the mid-1990s.

4. The Institute of Physical and Chemical Research (RIKEN) was a quasi-public corporation located in Saitama-ken, Japan. RIKEN received over 94 percent of its operational funding from the Ministry of Science and Technology of the government of Japan to promote creative and advanced research in the physical, chemical, engineering and biological sciences. The Brain Science Institute (BSI) of RIKEN was formed in 1997 as a specific initiative of the Ministry of Science and Technology to conduct research in the area of neuroscience, including research into the genetic cause of, and possible treatment for Alzheimer's Disease.

5. Alzheimer's Disease affects an estimated 4 million people in the United States alone and is the most common cause of dementia. A number of research clinics and university laboratories are engaged in research to understand Alzheimer's Disease, and determine the possible cause of, and treatment for the disease. Although the cause or causes of Alzheimer's Disease are unknown, scientists know that early-onset Alzheimer's Disease often runs in families.

6. Some scientists believe that certain proteins found in the human brain, called beta amyloid and amyloid precursor protein (or APP), may be the cause of the plaque which is found

in the brains of people who have died from Alzheimer's Disease. Scientists thus started to study how the body produces these proteins. DNA (or Dioxyribonucleic acid) is the material which contains the genetic code, the genes and chromosomes, to make all the molecules in the human body, as well as in the bodies of animals such as mice. Scientists soon discovered that a mutant APP gene was located at chromosome 21 near the beta amyloid fragment, and might be the cause of a particular type of early-onset Alzheimer's Disease. Soon thereafter, other scientists were able to identify two other specific genes, known as Presenilin-1 and Presenilin-2, which also may cause the early-onset Alzheimer's Disease to pass genetically from parent to child. The studies have concluded that all individuals that receive a mutated form of one of these three genes from just one of their parents will develop early-onset Alzheimer's Disease.

7. The research conducted by OKAMOTO and the researchers in Lab 164 of the LRI was focused upon this inherited, early-onset type of Alzheimer's Disease, and sought to understand how the three mutated genes cause the disease, and thus possibly, to understand how the non-inherited form of Alzheimer's Disease is caused. Almost $2,000,000 in funding to conduct this research came from three sources -- the Cleveland Clinic Foundation, the National Institutes of Health, and the Prentiss Foundation.

8. To study the inherited, early-onset form of Alzheimer's Disease, OKAMOTO and the researchers in Lab 164 developed "designer genes" which are called "reagents." To do this, the researchers pieced together various parts of different molecules into specific reagents. The researchers would identify this specific reagent by placing a "tag" on one or both ends of the combined molecules. Reagents are constructed in different ways, depending upon the ultimate

use of the reagent. The term "construct" refers to a reagent that is constructed for a specific purpose, and tagged for identification.

9. The researchers then used recombinant DNA techniques (also known as genetic engineering) to transfer these reagents to cells in a laboratory dish or into laboratory mice. The researchers introduced the reagents into the cells or into the mice in order to understand how the mutated APP gene was processed in normal brains and in those afflicted with Alzheimer's Disease, and how it may specifically interact with other genes such as the three types of Caveolae genes. The researchers would then observe and study the chemical reactions the reagents caused as they were introduced into the cells in lab dishes or the brains of the transgenic mice to understand the function of normal and diseased molecules. The researchers also would seek to manipulate the chemical reactions in the molecules to produce pharmaceutical therapies for treatment of Alzheimer's Disease.

10. Most of the reagents and constructs which were used in the research conducted in Lab 164 of the LRI were uniquely designed and produced in the LRI laboratory. These reagents and constructs are very complex, and are difficult and expensive to design. The reagents and constructs were kept in small vials, stored in white boxes with a capacity of 80-100 vials. These boxes containing the vials of reagents were stored in -20° and -80° liquid nitrogen freezers. The researchers maintained custody of the research materials they developed, and access to the laboratory area was controlled by a card key access machine.

11. The researchers at the LRI were required by CCF officials to sign professional staff agreements which, among other things, required the professional staff to adhere to the policies and procedures of the CCF as set forth in the Medical Staff Bylaws and the Manual of

Major Policies for the Professional Staff at the CCF. The 1997 CCF Major Policies for the Professional Staff enumerates professional staff policies which are required of all researchers, and which protects the proprietary interests of the CCF. Pursuant to policies, the CCF is assigned all rights, title, and interest in improvements, discoveries, ideas, or inventions arising out of the professional activities of all staff, employees, and trainees. Any revenue, including royalties, equity and payments, from licensing, sale or other disposition of patents, know-how, trademarks, or other proprietary innovations, are distributed 50 percent to the CCF and 50 percent to the inventor. In addition, all employees of the CCF are required to cooperate with the CCF Office of Technology Transfer (OTT) concerning applications to obtain patents, copyrights, trade secrets, or other protection for inventions. When scientific research produces a significant finding, the lead scientist initiates a "discovery initiative." The discovery initiative is then submitted to the OTT for review and consideration of a technical transfer, or "tech-transfer." The tech-transfer is a legal initiative which provides protection for an invention or patent.

B. THE CONSPIRACY AND ITS OBJECTS

12. From in or about January 1998, to September 1999, in the Northern District of Ohio, and elsewhere, the defendants, OKAMOTO and SERIZAWA, did knowingly and willfully combine, conspire, confederate and agree with each other and with persons known and unknown to the Grand Jury to commit certain offenses against the United States, that is:

(a) to knowingly and with the intent to benefit a foreign government and instrumentality of the foreign government, and without authorization, attempt to steal and steal, and without authorization, appropriate, take, carry away, conceal, alter, destroy, and obtain by

fraud, artifice and deception, a trade secret of another entity in violation of Title 18, United States Code, Sections 1831 and 2 (commonly referred to as the "Economic Espionage Act");

(b) to transport, transmit and transfer in interstate and foreign commerce, goods of a value exceeding $5,000, knowing that such goods were stolen, converted and taken by fraudulent means in violation of Title 18, United States Code, Sections 2314 and 2 (commonly referred to as the "Interstate Transportation of Stolen Goods Statute"); and

(c) to knowingly and willfully make materially false, fictitious and fraudulent statements and representations in a matter within the jurisdiction of the executive branch of the Government of the United States, in violation of Title 18, United States Code, Sections 1001 and 2 (commonly referred to as the "False Statements Statute").

C. OBJECTS AND MANNER AND MEANS OF THE CONSPIRACY

13. It was the purpose and object of the conspiracy that the defendants, OKAMOTO, SERIZAWA, and others known to the Grand Jury, would and did misappropriate from the CCF certain genetic materials called dioxyribonucleic acid (DNA) and cell line reagents and constructs which were developed by researchers employed by the CCF, with funding provided by the CCF and the National Institutes of Health, to study the genetic cause of, and possible treatment for Alzheimer's Disease.

14. It was a further purpose and object of the conspiracy that the defendants OKAMOTO, SERIZAWA, and others known to the Grand Jury, would and did confer a benefit upon RIKEN, an instrumentality of the government of Japan, by providing RIKEN with the DNA and cell line reagents and constructs which were misappropriated from the CCF.

15. It was a further purpose and object of the conspiracy that defendant OKAMOTO, in order to ensure that RIKEN acquired a competitive advantage over the Alzheimer's Disease researchers at CCF, would and did destroy and sabotage, and cause to be destroyed and sabotaged, any DNA and cell line reagents and constructs and the accompanying research laboratory notes which were not misappropriated from the laboratory at CCF.

D. OVERT ACTS

16. In furtherance of this conspiracy, and to effect the objects thereof, at least one of the co-conspirators herein committed or caused to be committed at least one of the following overt acts, among others, in the United States, and specifically in the Northern District of Ohio, the District of Kansas and elsewhere:

17. In or about October 1998, defendant OKAMOTO met with a representative of RIKEN at the Annual Neuroscience Conference in Los Angeles, California, at which they discussed the possibility of defendant OKAMOTO returning to Japan to conduct research for a new laboratory at RIKEN.

18. In or about December 1998, defendant OKAMOTO attended a seminar at RIKEN in Japan where defendant OKAMOTO and representatives of RIKEN again discussed the possibility of his future employment at RIKEN to conduct research.

19. In or about April 1999, RIKEN offered and defendant OKAMOTO accepted a position as a neuroscience researcher to begin in the Fall of 1999.

20. In or about April 1999, defendant OKAMOTO provided a handwritten list of reagents and constructs to a researcher in Lab 164 and instructed this researcher to provide him with detailed written instructions concerning how these reagents and constructs were developed.

21. On or about June 2, 1999, defendant OKAMOTO sent an e-mail message to all the researchers in Lab 164 instructing them to transfer all of the cell line reagents upon which they were working to a centrally-located liquid nitrogen freezer in the Neuroscience Department at the LRI.

22. From on or about the late evening hours of July 8, 1999, to on or about the early morning hours of July 9, 1999, defendant OKAMOTO and his co-conspirator, Dr. A, a person known to the grand jury but not indicted herein, misappropriated DNA and cell line reagents and constructs from Lab 164 at the CCF.

23. From on or about the late evening hours of July 8, 1999, to on or about the early morning hours of July 9, 1999, defendant OKAMOTO and his co-conspirator, Dr. A, a person known to the grand jury, destroyed, sabotaged, and caused to be destroyed and sabotaged, the DNA and cell line reagents and constructs which they did not remove from Lab164 at the CCF.

24. On or about July 10, 1999, defendant OKAMOTO stored four boxes containing the stolen DNA and cell line reagents at the Cleveland, Ohio home of Dr. B, a colleague at the CCF, with whom defendant OKAMOTO was residing temporarily.

25. On or about July 12, 1999, defendant OKAMOTO retrieved the boxes of stolen DNA and cell line reagents and constructs from Dr. B's home and sent them from Cleveland, Ohio by private interstate carriers to defendant SERIZAWA at Kansas City, Kansas.

26. On or about July 26, 1999, defendant OKAMOTO resigned from his research position at the CCF.

27. On or about August 3, 1999, defendant OKAMOTO started his research position with RIKEN in Japan.

28. On or about August 10, 1999, defendant OKAMOTO returned to the United States from Japan.

29. On or about August 16, 1999, defendant OKAMOTO retrieved the stolen DNA and cell line reagents and constructs from defendant SERIZAWA's laboratory at KUMC, in Kansas City, Kansas.

30. On or about August 16, 1999, defendants OKAMOTO and SERIZAWA filled small laboratory vials with tap water and made meaningless markings on the labels on the vials, and defendant OKAMOTO instructed defendant SERIZAWA to provide these worthless vials to officials of the CCF in the event that they came looking for the missing DNA and cell line reagents.

31. On or about August 17, 1999, defendant OKAMOTO departed the United States for Japan and carried with him the stolen DNA and cell line constructs and reagents.

32. From on or about January 1999, through on or about August 1999, defendant OKAMOTO did not request permission from any official of the CCF for any tech-transfer agreements which would have allowed him legally to transfer the research he was conducting in Lab 164 of the LRI to RIKEN.

33. On or about September, 1999, defendant SERIZAWA provided a materially false, fictitious and fraudulent statement in an interview of him by Special Agents with the Federal Bureau of Investigation, who were investigating the theft of the DNA and cell line reagents from the CCF, in that defendant SERIZAWA denied receiving any biomedical materials from defendant OKAMOTO; denied any recent telephone, electronic mail or personal contact with

defendant OKAMOTO; and denied any knowledge of defendant OKAMOTO having accepted a research position with RIKEN.

All in violation of Title 18, United States Code, Sections 371.

COUNT 2

The Grand Jury further charges:

1. Paragraphs 1 through 11, and 16 through 33 of Count One are realleged and incorporated herein by reference.

2. In or about July 1999, in the Northern District of Ohio and elsewhere, defendants OKAMOTO and SERIZAWA, knowingly and with the intent to benefit RIKEN, an instrumentality of the government of Japan, without authorization, did steal, appropriate, take, carry away, conceal, and obtain by fraud, artifice and deception, certain trade secrets that were the property of the CCF, specifically, ten DNA and cell line reagents developed through the efforts and research of researchers employed and funded by the CCF and by a grant from the National Institutes of Health.

All in violation of Title 18, United States Code, Sections 1831(a)(1) and 2.

COUNT 3

The Grand Jury further charges:

1. Paragraphs 1 through 11, and 16 through 33 of Count One are realleged and incorporated herein by reference.

2. In or about July 1999, in the Northern District of Ohio and elsewhere, defendants OKAMOTO and SERIZAWA, knowingly and with the intent to benefit RIKEN, an instrumentality of the government of Japan, without authorization, did alter and destroy certain trade secrets that were the property of the CCF, specifically, DNA and cell line reagents developed through the efforts of researchers employed and funded by the CCF and by a grant from the National Institutes of Health.

All in violation of Title 18, United States Code, Sections 1831(a)(2) and 2.

COUNT 4

The Grand Jury further charges:

1. Paragraphs 1 through 11, and 16 through 33 of Count One are realleged and incorporated herein by reference.

2. In or about July 1999, in the Northern District of Ohio and elsewhere, defendants OKAMOTO and SERIZAWA did transport, transmit and transfer in interstate and foreign commerce, goods of a value exceeding $5,000, specifically, DNA and cell line reagents developed through the efforts of researchers employed and funded by the CCF and by a grant

from the National Institutes of Health, knowing that such goods were stolen, converted and taken by fraudulent means.

All in violation of Title 18, United States Code, Sections 2314 and 2.

A TRUE BILL.

FOREPERSON

WILLIAM J. EDWARDS
ACTING UNITED STATES ATTORNEY